

All About Flash Flood

The Flash Flood Book For Kids



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Chapter 1

I am Flash Flood

Hello my dear boys and girls,
I am the flash flood.
Have you seen me?
Do you know how powerful I am?

I am very famous on the earth.
No matter where I go,
everybody fears me.
Now,
I will let you have a taste of my power.



The following pictures were taken on the early morning of August 14, 2017, when heavy rains came in Freetown, Sierra Leone, Africa. Then, my arrival caused heavy floods and mudslides.

When I left, many houses were buried and more than 312 people died.

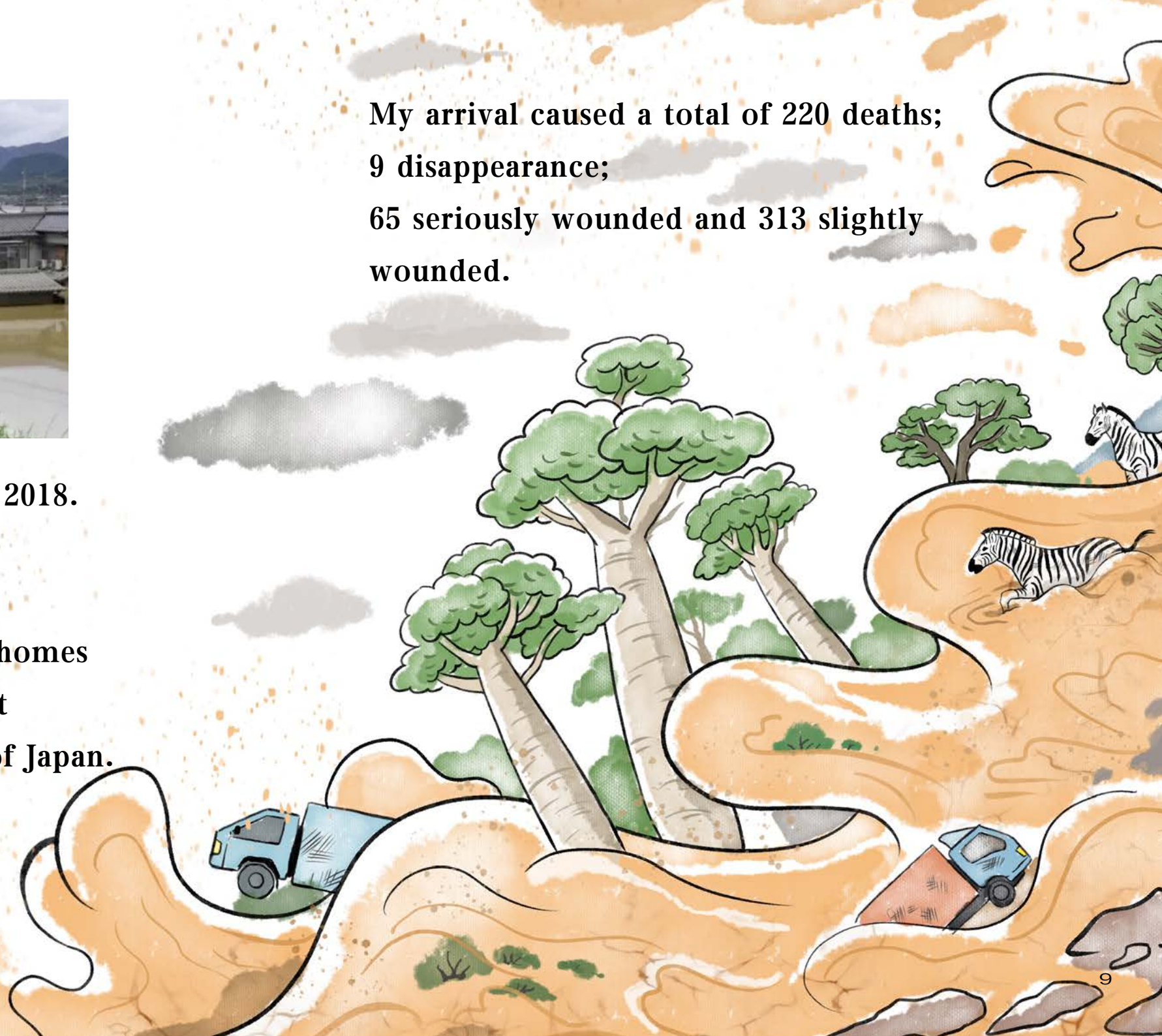




This was a picture of Japan in July 2018.

On my arrival:
large numbers of people lost their homes
and economic losses and significant
casualties happened in most parts of Japan.

My arrival caused a total of 220 deaths;
9 disappearance;
65 seriously wounded and 313 slightly
wounded.





When I was in the southern Philippines in
December 2011,
I claimed more than 1,400 lives.

Am I powerful?

A car seems like a toy in front of me and will
be overturned in an instant.

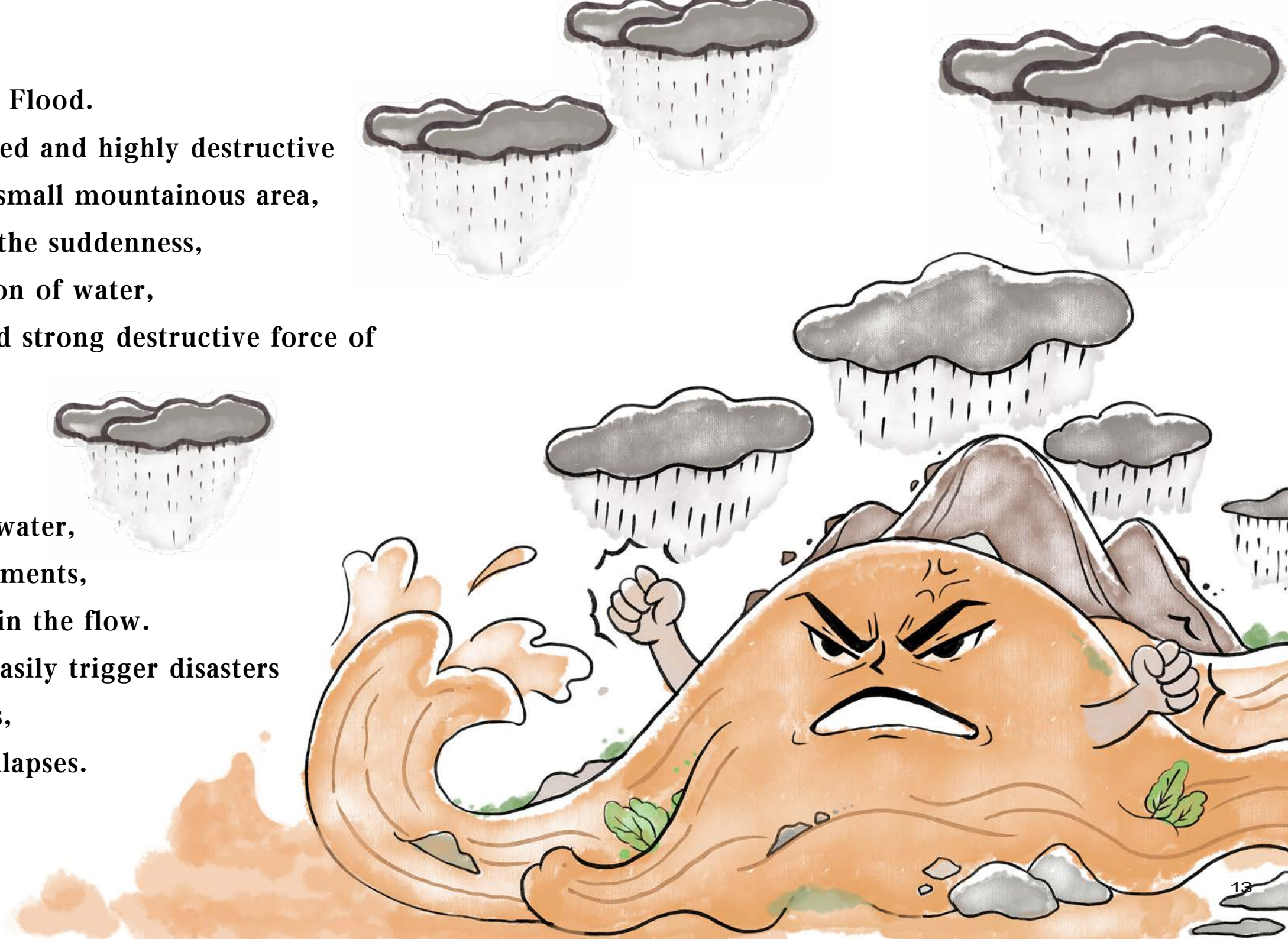
My name is Flash Flood.

I am an unexpected and highly destructive flood covering a small mountainous area, characterized by the suddenness, large concentration of water, high flow rate and strong destructive force of erosion.

But in fact,

I am not merely water, also carrying sediments, rocks and stones in the flow.

It can allow me easily trigger disasters such as mudslides, landslides and collapses.



Chapter 2

Rain in Africa



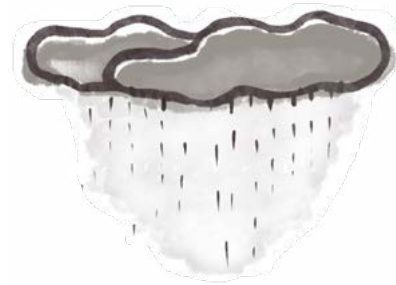
You may ask then, where I come from?

And what makes me so grumpy?

With these questions in mind,
let's explore it further.

Attention please!

Key points are as follows.



Rainfall is one factor triggering mountain flood disasters.

Heavy rainfall or snow melting in a short period of time is likely to cause mountain floods in mountainous regions.

The precipitation in Africa decreases from the Equator to the North and South Poles, and its distribution is extremely unbalanced.



There is almost no rain all year round in some areas, while the annual precipitation can reach more than 10,000 mm in other places.

The annual average precipitation in 1/3 of Africa is less than 200 mm. Flash floods are more likely to occur during seasons of heavy rainfall.

The period of time in which river floods are concentrated in the year is called "flood season", which is also the period with heavy rainfall.

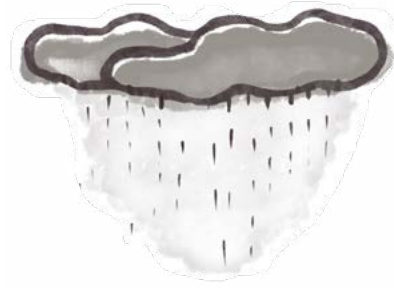
The flood season in Africa generally refers to spring and summer.

Steep topography is a fundamental factor leading to flash flood disasters.

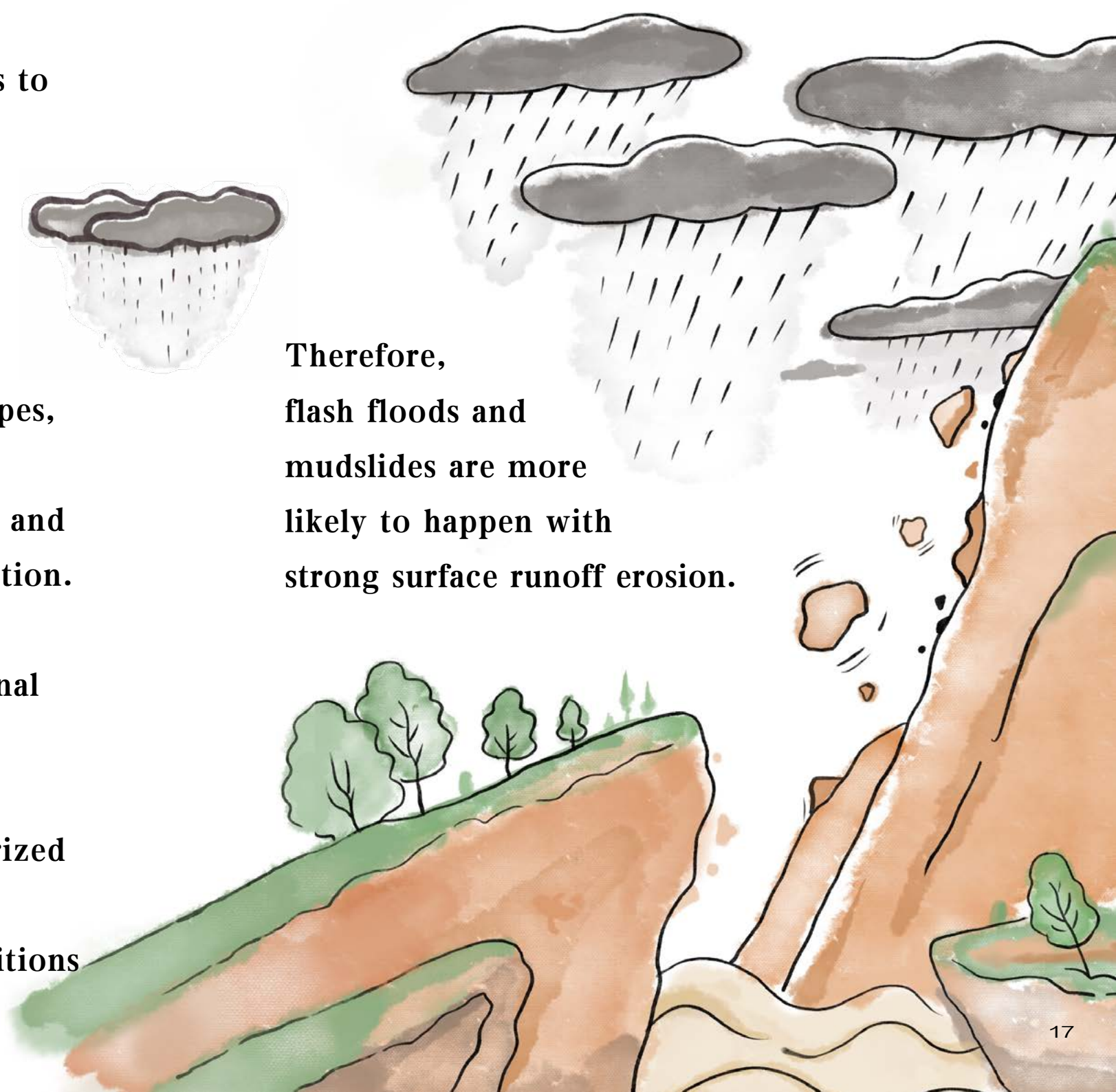
Flash flood disaster-prone areas are concentrated in high mountains, steep slopes, deep valleys and riverbeds, where there is big longitudinal river slope and fitful basin shape for water flow accumulation.

Complex geological condition is the internal factor aggravating flash flood disasters.

The flood-prone areas are often characterized by harsh geological conditions, severe weathering, and loose soil, in which conditions soil easily softens and crashes.



Therefore, flash floods and mudslides are more likely to happen with strong surface runoff erosion.



Excessive deforestation for land reclamation, over-cultivation and grazing have transformed topography and landforms. It destroyed natural vegetation.

The water conservation capacity was also damaged, which caused soil erosion and increased the occurrence of flash floods.



Excessive sand mining in river courses in violation of the stipulations and excavating medicinal materials and stones on mountains have not only damaged the ecological environment, but also destroyed the flood passages, further compounding the damage of flash floods.



Due to the imperfect planning for urban construction, some new towns tend to be built in low-lying areas, occupying part of rivercourses.

Besides, many people dump a large amount of construction spoils, waste slag and all kinds of garbage into the river channels, blocking the river, forcefully narrowing the river width and increasing the occurrence of flash floods and even mudslides.

The houses built in the river courses are very easily to be washed away, giving rise to casualties.



Chapter 3

Are you scared of me?

Floods have always been a natural disaster that threatens human lives and properties.

Ancient myths such as Noah's Ark also reflect that humans have been fighting the floods thousands of years ago and paid painful prices for them.

Today, the floods still cannot be stopped and remain one of the major natural disasters for human beings.

Flash floods disasters refer to the disasters caused by flash floods, including the flooding of rivers and streams, accompanied by mudslides, landslides, etc., causing casualties, property damages, infrastructure damages and environmental resource damages.

Flash floods can wash away houses, flood villages and towns, and cause casualties.



Flash floods will damage roads,
disrupt power and
communication lines,
blocking the access to
rescue materials
and enlarging the loss.

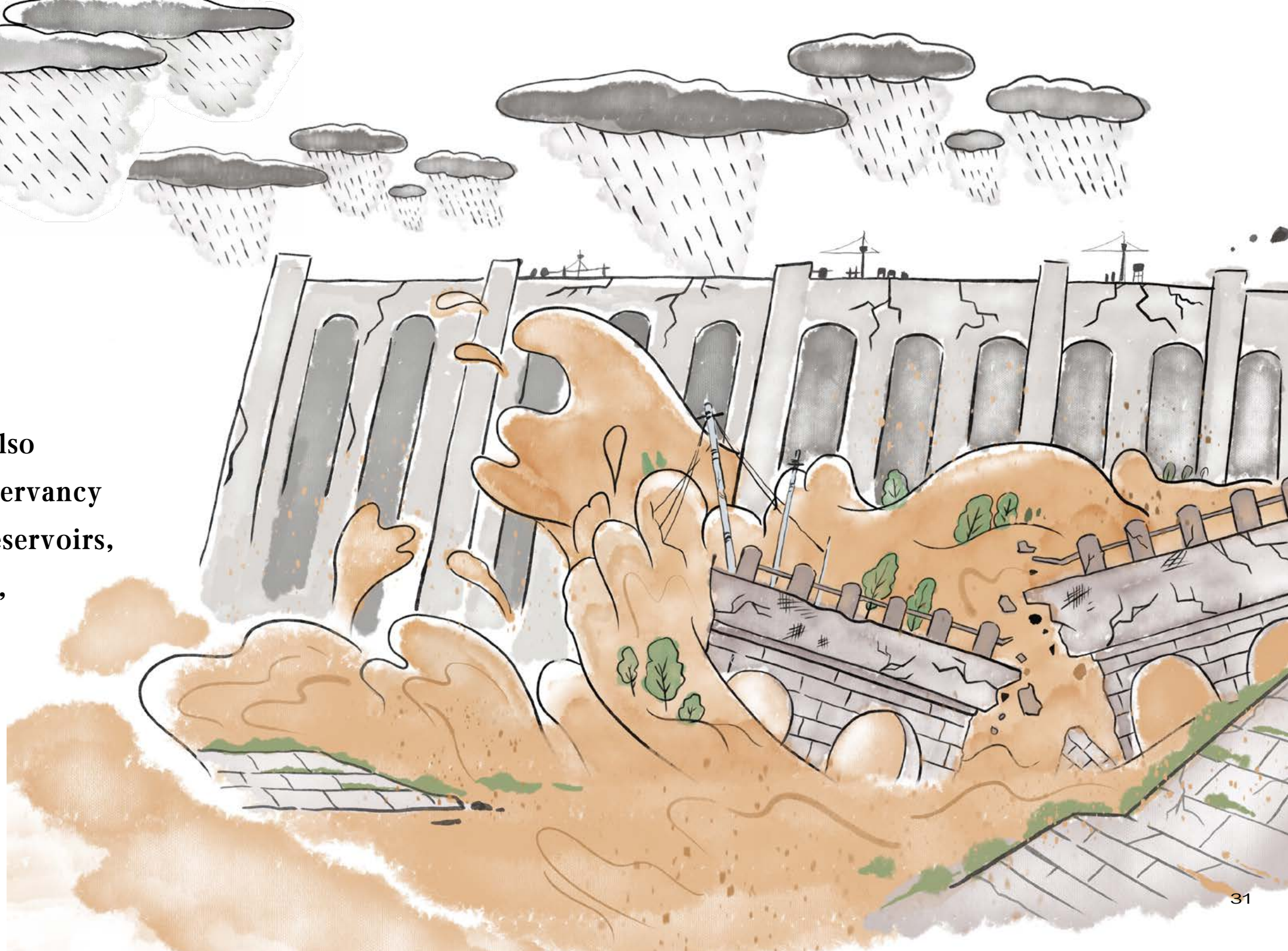




Flash floods will destroy farmland and soak crops, reducing crop yields substantially.

The large amount of sediments and debris left in the farmland will deteriorate the soil quality and reduce the crop production for a long period of time.

Flash floods may also destroy water conservancy facilities such as reservoirs, channels and dikes, causing serious consequences.



Chapter 4

Who can foretell When I am coming?

I often pay sudden visits to people during the rainy seasons.

Everyone should pay attention to local weather by listening to the radio, watching TV and surfing on the Internet.

Although the weather forecast is more professional, it mainly forecasts rainfalls in a generally wider area. By observing them, human beings can increase their vigilance against me.

Next, let's take a look at how these natural helpers can give people hints.

1. Ants moving, heavy raining.
2. If bees don't leave the nest, there will be rain in midnight. If bees go home early, the rain will come quickly.
3. If mountains are capped by cloud, heavy rain will come. If you see mushroom cloud on mountain top, you'll expect rain on the next day.
4. The frogs croak, heavy rain comes.
5. The trees on the mountains are rustling, and the mountains are unusually bright.
6. The water in the creek is very turbid.

Chapter 5

Stay away, I am coming.

In case of my arrival,
what should mankind pay attention to?
Stay calm.

When you encounter rainstorms and flash
floods in the mountains,
you must strictly abide by the following
precautions.

1. Protect yourself against lightning in rainstorms
Do not shelter from the rain under big trees, and
do not hold metal objects in the rain to prevent
being hurt by lightning.

2. Run to the mountain top along the two sides
Don't panic when encountering a flash flood,
and run to the high slopes on both sides of the
mountain gully.

Never run along the ditches.

3. Don't rush to save others

When encountering a flash flood, students should
help each other and get out of danger as soon as
possible. If you can't guarantee your own safety,
don't rush to rescue others.

How should human beings defend against flash floods in daily life?

1. How to defend against flash flood disasters when choosing the location of building for architects and engineers?

Do not build houses on a slope;

Do not build a house in low-lying areas;

Do not build a house at the corner of a river;

Do not build a house at the intersection point of two rivers;

Do not build houses at the ends of the bridge;

Do not build houses on an unstable land;

Do not build houses by occupying to the river courses.



2. Precautions for students on their way to and from schools

During heavy rains, pay attention to the change of water level on the way.

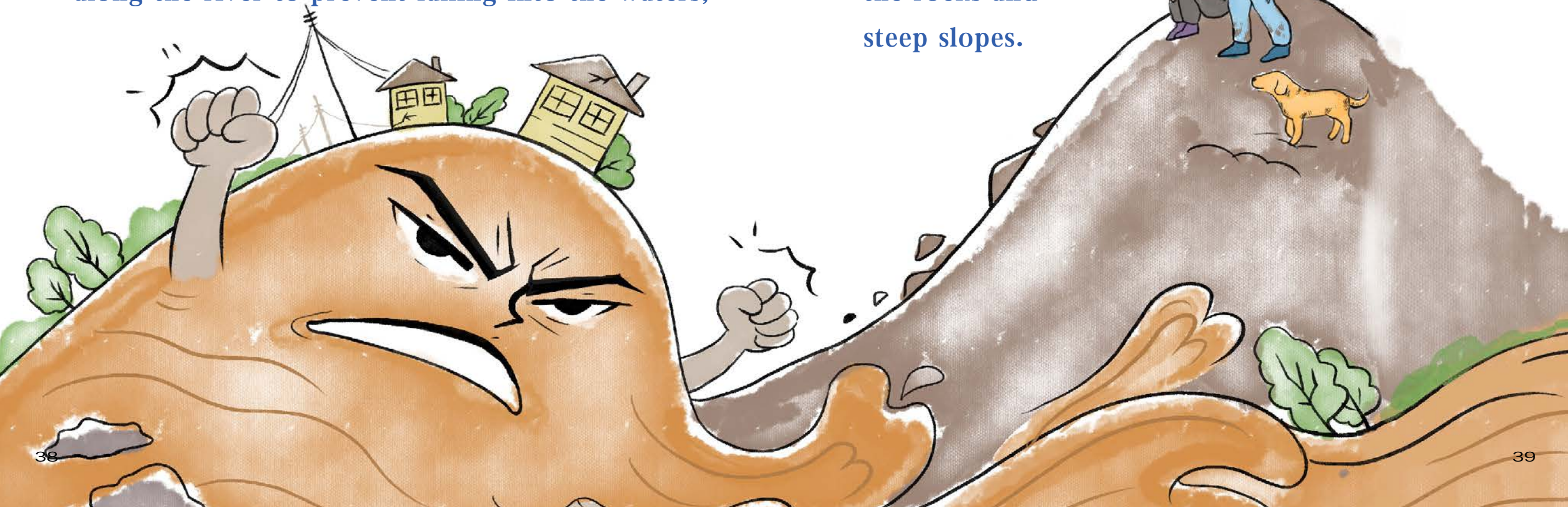
If there is an abnormal change of water level, escape quickly to high places;

If the road is along a river section, do not walk along the river to prevent falling into the waters;

Do not play with waters, or stand on the riversides, bridges to watch water;

In case of flooding, run to the high places of the hillside, do not run in the direction of the river;

Be alert to landslides and collapses, do not take shelter from the rocks and steep slopes.



3. Precautions when driving in rainstorms

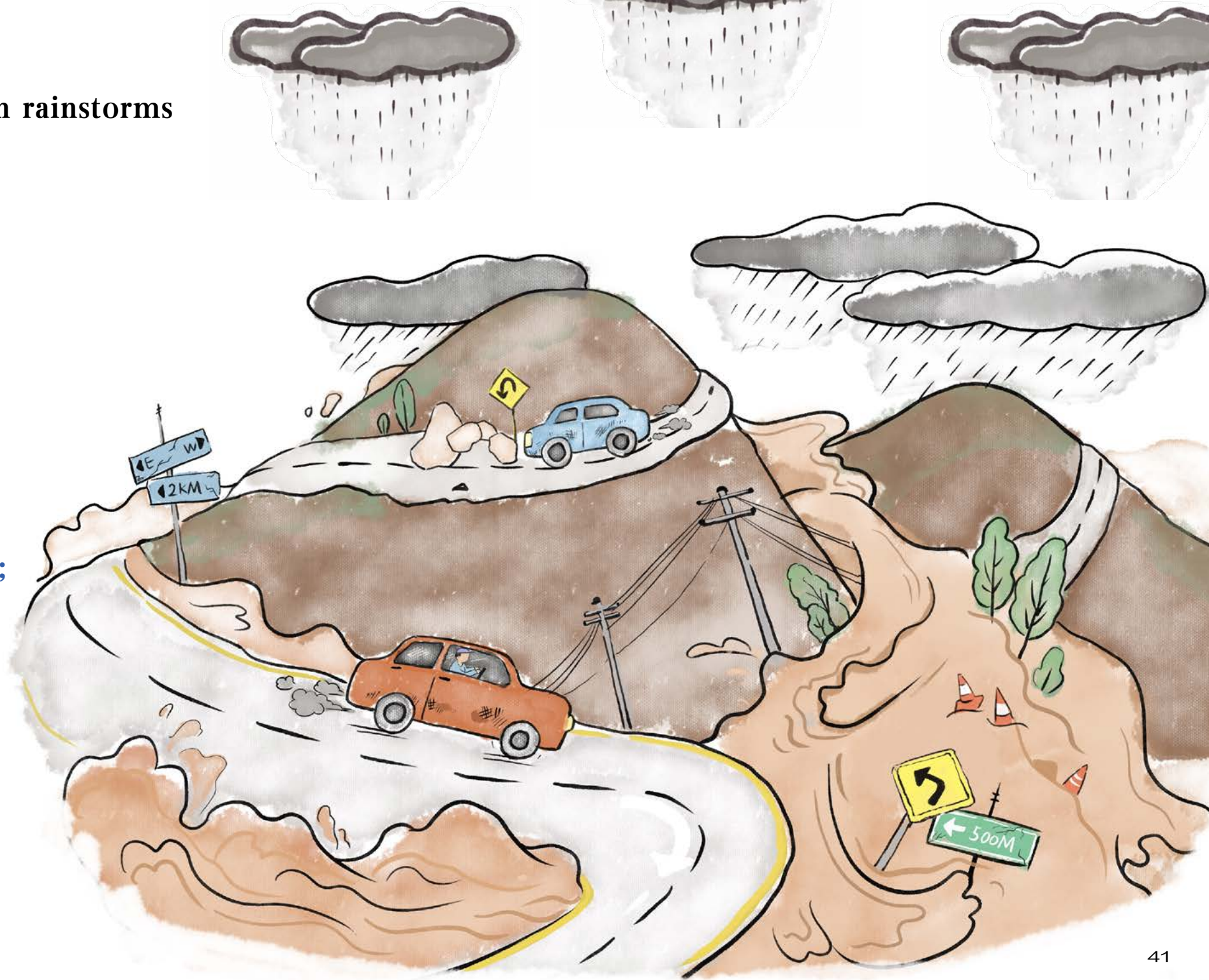
Pay attention to weather changes and arrange

Travel routes reasonably;

Be aware of safety and do not force entry when the scenic spots are closed;

Do not rush through standing water during driving;

Do not easily cross the river.



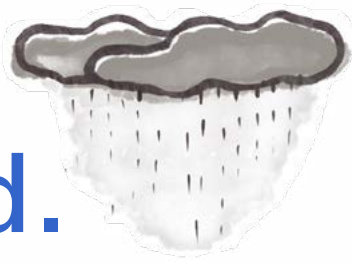
Chapter 6

Don't be afraid.

So

come to

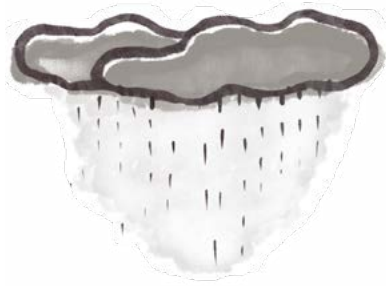
When encounter
you should
on the two
do not run



If surrounded by floods, call the police as soon as possible, and calmly and accurately

1. 2. 3. 4. 5. 6. 7. 8. 9. 10.





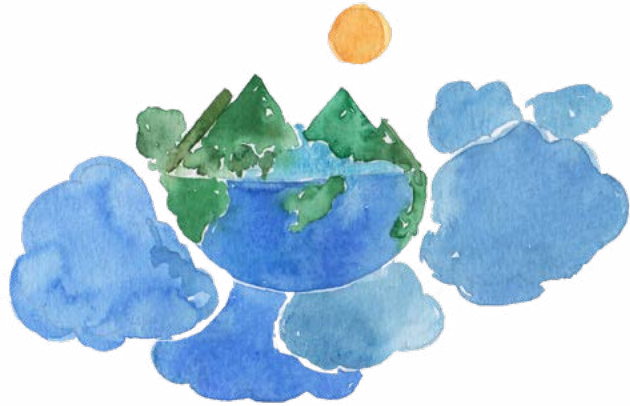
In order to get out of danger more timely,
daily training drills are essential.

You should set up necessary signs, strengthen
training and publicity, also be familiar with
the transfer route and resettlement location.



Chapter 7

Q&A



1. Which of the following phenomena indicates the arrival of the flash flood?

- A. Ants are moving.
- B. Mountains are capped with clouds.
- C. Streams and river waters are turbid.
- D. Sky are clear.

2. Which of the following actions is correct when a flash flood occurs?

- A. Run to the high places of two hillsides.
- B. Run in the direction of the river.
- C. Do not wade through the river.
- D. Have a feeling that the river is not deep and try crossing the river.

3. Which of the following are flash flood disasters?

- A. Flash flood.
- B. Debris flow.
- C. Mountain landslide.
- D. Volcanic explosion.

1.ABCD 2.AC 3.ABC

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